

Title (en)
COOLING OF AN ELECTRIC MACHINE

Title (de)
KÜHLUNG EINER ELEKTRISCHEN MASCHINE

Title (fr)
REFROIDISSEMENT D'UNE MACHINE ÉLECTRIQUE

Publication
EP 3058290 A2 20160824 (DE)

Application
EP 15702665 A 20150121

Priority
• EP 14155749 A 20140219
• EP 2015051110 W 20150121
• EP 15702665 A 20150121

Abstract (en)
[origin: WO2015124360A2] The invention relates to an electric machine, comprising a first cooling section (1), in which a first cooling medium for cooling the electric machine is provided, and a second cooling section (2), in which a second cooling medium is provided. In order to provide an alternative to known cooling systems for electric machines, the electric machine according to the invention has at least one active part (3) and at least one heat transport element (4) comprising a magnetocaloric material, wherein a magnetic field (5) can be applied to the at least one heat transport element (4) at least partially and/or at least temporarily by means of the at least one active part (3), wherein the at least one active part (3) and the at least one heat transport element (4) are designed in such a way that waste heat can be transferred from the first cooling medium to the second cooling medium by using the magnetocaloric effect.

IPC 8 full level
F25B 21/00 (2006.01); **H02K 9/00** (2006.01)

CPC (source: CN EP RU US)
F25B 21/00 (2013.01 - CN EP RU US); **H02K 9/227** (2021.01 - CN EP RU US); **F25B 2321/0022** (2013.01 - CN EP US);
Y02B 30/00 (2013.01 - EP US)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2910873 A1 20150826; CN 106063092 A 20161026; CN 106063092 B 20181030; EP 3058290 A2 20160824; RU 2016129171 A 20180320;
RU 2016129171 A3 20180328; RU 2668266 C2 20180928; US 2017067670 A1 20170309; WO 2015124360 A2 20150827;
WO 2015124360 A3 20151029

DOCDB simple family (application)
EP 14155749 A 20140219; CN 201580009336 A 20150121; EP 15702665 A 20150121; EP 2015051110 W 20150121;
RU 2016129171 A 20150121; US 201515119974 A 20150121